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# A new species of *Diplococcium* from the Brazilian semi-arid region

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Abstract — An undescribed hyphomycete collected during investigations of microfungi on dead plant material in a semi-arid region of northeast Brazil is described and illustrated as *Diplococcium heteroseptatum* sp. nov. The new fungus is distinguished by differentiated brown verruculose conidiophores and oblong to cylindrical 0–12-heteroseptate (but mostly 1-septate) brown conidia.

Key words— biodiversity, taxonomy, tropical microfungi

## Introduction

During a mycological survey of conidial fungi from the semi-arid region in Bahia State, Brazil, a conspicuous fungus was collected that is clearly related to the genus *Diplococcium* Grove, introduced by Grove (1885) with *D. spicatum* as the type species. The genus comprises 29 species characterized by distinct, erect or funiculose, branched, pigmented conidiophores and blastocatenate, unicellular or septate, pigmented conidia produced on polytretic conidiogenous cells (Silva et al. 2014).

## Materials & methods

Samples of bark were collected from March 2007 to November 2008 at Serra da Fumaça (10°74′S 40°36′W) and Serra da Jibóia (12°50′S 39°28′W), Bahia state. Methods for specimen collection, isolation, and morphological examination are provided in Almeida et al. (2014). Holotype and additional specimens were deposited in the Herbarium of the State University of Feira de Santana, Bahia, Brazil (HUEFS).

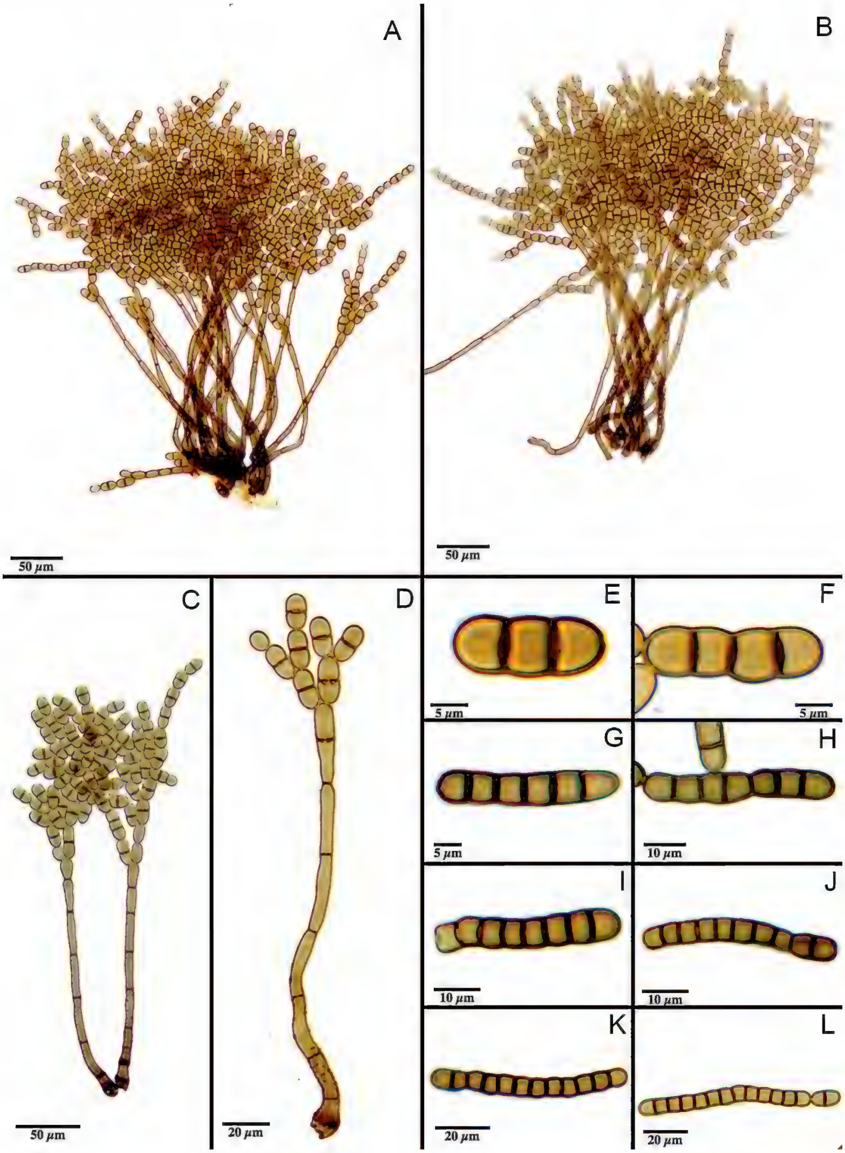

Fig. 1. *Diplococcium heteroseptatum* (holotype, HUEFS 210432): A–B. General aspect. C–D. Conidiophores, conidiogenous cells, and conidia. E–L. Conidia showing the variation in the number of septa.

## Taxonomy

***Diplococcium heteroseptatum*** D.A.C. Almeida, T.S. Santa Izabel,
R.F. Castañeda & Gusmão, **sp. nov.** Figs 1, 2

MycoBank MB810699

Differs from all other *Diplococcium* spp. by the wide range of conidial septation.

Type: Brazil, Bahia State, Pindobaçu, Serra da Fumaça, on bark of an unidentified plant, 20.XI.2008, coll. D.A.C. Almeida (**Holotype**: HUEFS 210432).

Etymology: from the Greek, *hetero-*, referring to the variable numbers of septa + from the Latin, *-septatum*, referring to the septa.

Conidiophores distinct, single or grouped to profusely fasciculate, erect, unbranched or rarely branched, straight or flexuous, septate, verrucose or verruculose below, smooth toward the apex, brown, 120–300 × 4.5–9 µm. Conidiogenous cell polytretic, integrated, terminal, smooth, brown. Conidia blastocatenate, ellipsoid to oblong or cylindrical, rounded at the ends, 0–12-septate, but mostly 1-septate, constricted at the somewhat thickened septa, smooth, brown, concolorous, 10–77 × 6–10 µm.

Additional specimens examined: **BRAZIL, Bahia**, Serra da Jibóia, on bark of an unidentified plant, 27.III.2007, coll. T.S. Santa-Izabel (HUEFS 210428; 210429; 210430; 210430); 9.IV.2007, coll. T.S. Santa-Izabel (HUEFS 210431).

Note: *Diplococcium heteroseptatum* also differs from all other *Diplococcium* species by its profusely fasciculate, verrucose or verruculose conidiophores and the random number of conidial septa observed.

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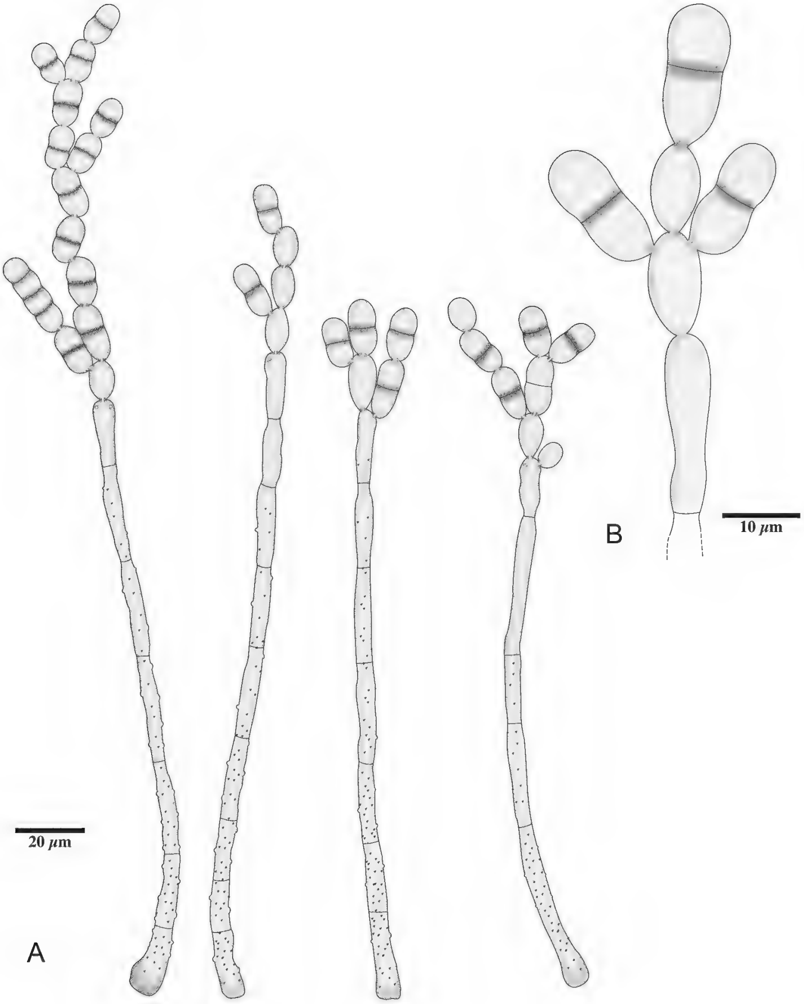

FIG. 2. *Diplococcium heteroseptatum* (holotype, HUEFS 210432):
A: Conidiophores, conidiogenous cells, and conidia. B: Conidiogenous cell and conidia.